SECTION 2: PURPOSE AND NEED

Several factors were evaluated to assess the need for a high capacity transit investment for the Central Avenue Corridor. These included an assessment of the existing and future transportation system and population and employment characteristics within the project influence area (see Figure 3). In addition, the need for high capacity transit is affected by land use and development policies. A discussion of each of these factors and their effect on the need for high capacity transit is provided below.

2.1 Existing Transportation System

The primary transportation infrastructure within the project area consists of an arterial street network that serves both automobile traffic and local bus service. Major east-west arterial streets and highways within the project area include Central Avenue, Lomas Boulevard, and Interstate 40. Other east-west arterial streets that traverse major portions of the project area are Lead Avenue, Coal Avenue, Zuni Road, Indian School Road, and Menaul Boulevard. In the north-south direction, arterial streets traverse the project area at intervals ranging from one-half mile to two miles.

East-west bus routes operating within the project area include both local, commuter, and express bus service. These routes include Menaul Boulevard (Route 8), Constitution Avenue (Route 12), Lomas Boulevard (Route 11), Central Avenue (Route 66), Zuni Road (Route 97), and Indian School Road (Route 6). Bus routes on north-south streets within the Louisiana Boulevard corridor include San Mateo Boulevard (Route 4), San Pedro (Route 34), and Louisiana Boulevard (Route 3). In addition, the Coors Boulevard bus route (Route 90) utilizes Central Avenue from Coors Boulevard to access the Downtown. Of the above lines, Routes 6, 12, and 34 are commuter routes and Route 97 provides express service. Others routes provide local bus service.

Because local bus service operates in mixed flow traffic on the arterial street network, congestion on the streets affects the efficiency (travel speed, effective capacity, and operating costs) of the existing bus service. The existing street system was evaluated to assess existing and future traffic congestion levels. Traffic congestion is usually measured by determining the level of service (LOS) of major intersections within the corridor since intersections are the major capacity constraining factor on arterial streets. LOS is a measure of roadway capacity and is represented by letters ranging from A to F with LOS A representing the best service and F the worst. LOS D or better is generally considered acceptable in urban settings.

Twenty-eight intersections (see Figure 4) were analyzed to determine their existing LOS. Intersections were analyzed for both morning and evening peak periods using traffic counts obtained from MRCOG and field collected data. As shown in Figure 4 and Table 1, three of the twenty-eight intersections evaluated currently operate at a LOS E or worse and six others have individual turning movements that are congested. Of the intersections and/or turning movements that experience congestion, five are on Central Avenue, two are on Lomas Boulevard, and one is on Menaul Boulevard.

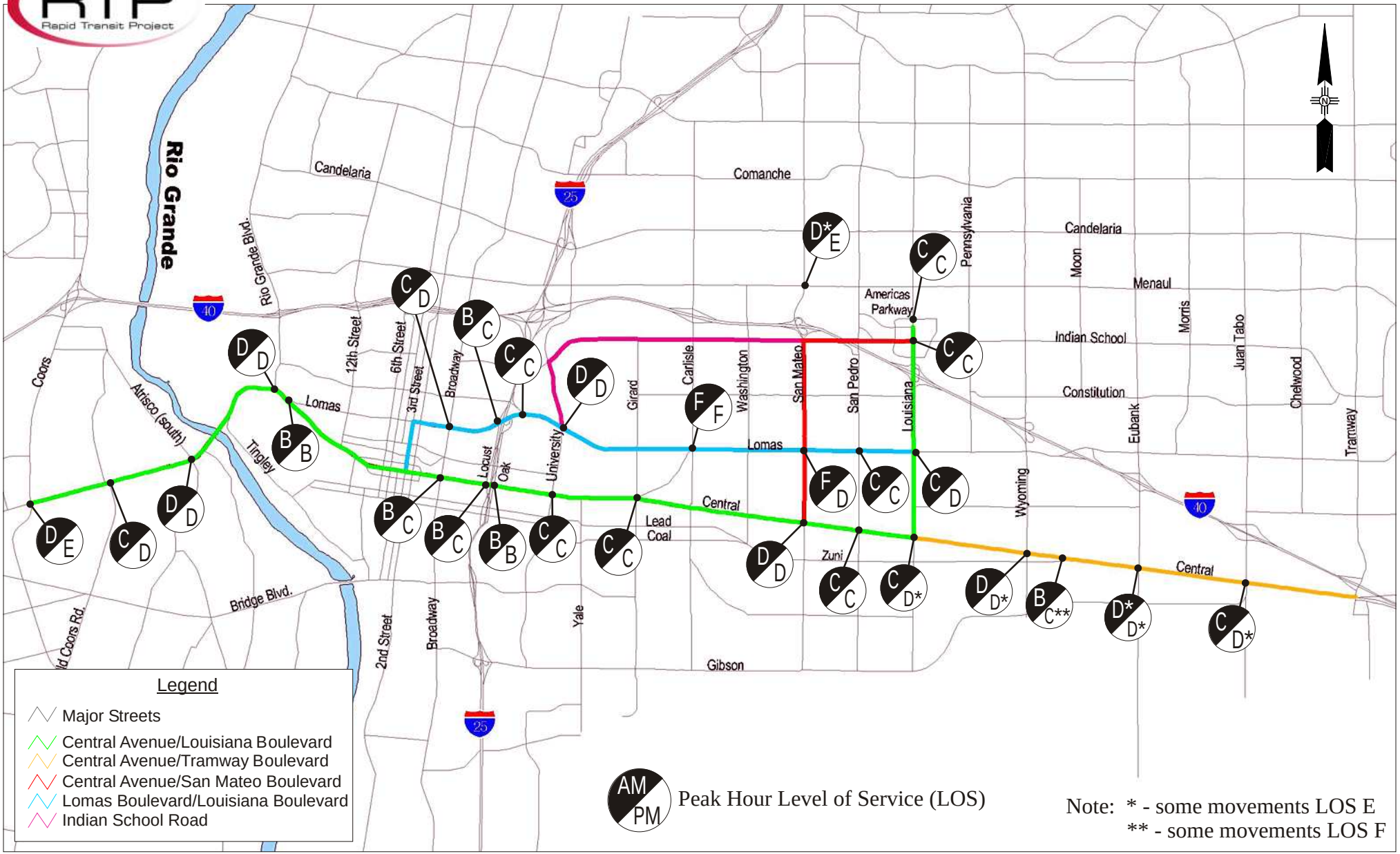

Figure 4: Year 2000 Intersection LOS

Table 1: Study Corridors Overall Intersection Level of Service Summary

Intersection	Morning Peak				Evening Peak			
	LOS		Delay (seconds)		LOS		Delay (seconds)	
	2000	2025	2000	2025	2000	2025	2000	2025
Central & Juan Tabo	C	F	28.9	88.2	D*	F	46.9	106.5
Central & Eubank	D*	D*	51.8	52.4	D*	D	50.3	47.0
Central & Zuni	B	C	18.4	23.4	C**	C	31.8	29.7
Central & Wyoming	D	D	36.8	35.1	D*	D	47.9	43.0
Central & Louisiana	C	C	28.9	30.0	D*	C	45.5	29.7
Central & San Pedro	C	C	27.5	26.8	C	C	31.4	28.7
Central & San Mateo	D	D	35.5	37.5	D	D	45.8	37.8
Central & Girard	C	E	25.8	72.0	C	D	30.6	40.6
Central & University	C	C	27.7	21.1	C	C	27.7	20.9
Central & Oak	B	B	15.4	14.6	B	B	16.5	16.4
Central & Locust	B	C	18.3	21.2	C	C	23.0	20.1
Central & Broadway	B	C	18.5	20.1	C	C	25.5	26.0
Central & Lomas	B	B	13.3	15.5	B	B	13.1	14.2
Central & Rio Grande	D	F	35.8	97.4	D	D*	45.0	50.0
Central & Atrisco	D	F	41.3	122.1	D	F	36.9	92.1
Central & Old Coors Road	C	D	33.1	39.0	D	D	41.3	38.6
Central & Coors Boulevard	D	D	35.5	51.8	E	E	59.6	60.5
Lomas & Broadway	C	C	32.4	30.5	D	C	37.3	29.7
Lomas & Locust	B	B	19.0	19.1	C	C	25.4	20.5
Lomas & Oak	C	C	22.5	23.2	C	C	20.3	21.1
Lomas & University	D	D	39.8	43.1	D	D	40.7	39.9
Lomas & Carlisle	F	F	80.7	144.1	F	F	141.0	116.1
Lomas & San Mateo	F	D*	128.5	47.5	D	D	44.0	40.7
Lomas & San Pedro	C	C	27.5	32.6	C	C	31.4	30.8
Lomas & Louisiana	C	D	30.4	44.1	D	D	38.4	38.4
Louisiana & Indian School	C	C	30.3	34.5	C	C	32.7	31.9
Louisiana & Americas Parkway	C	C	20.7	22.5	C	B	22.0	19.7
San Mateo & Menaul	D*	D	43.8	46.3	E	D*	62.9	46.3

* Some movements LOS E
** Some movements LOS F

Traffic operations were also assessed for the existing street system under projected traffic flows for the year 2025. Traffic projections for the year 2025 were developed using the regional travel forecasting model EMME2. The results of the analysis, which are illustrated in Figure 5 and summarized in Table 1, show a substantial increase in the number of locations where congestion is anticipated. Of the twenty-eight intersections evaluated, six are expected to operate at a LOS E or worse and two others are expected to have individual turning movements with a LOS E. Of the intersections and/or turning movements expected to be congested, six are on Central Avenue and two are on Lomas Boulevard.

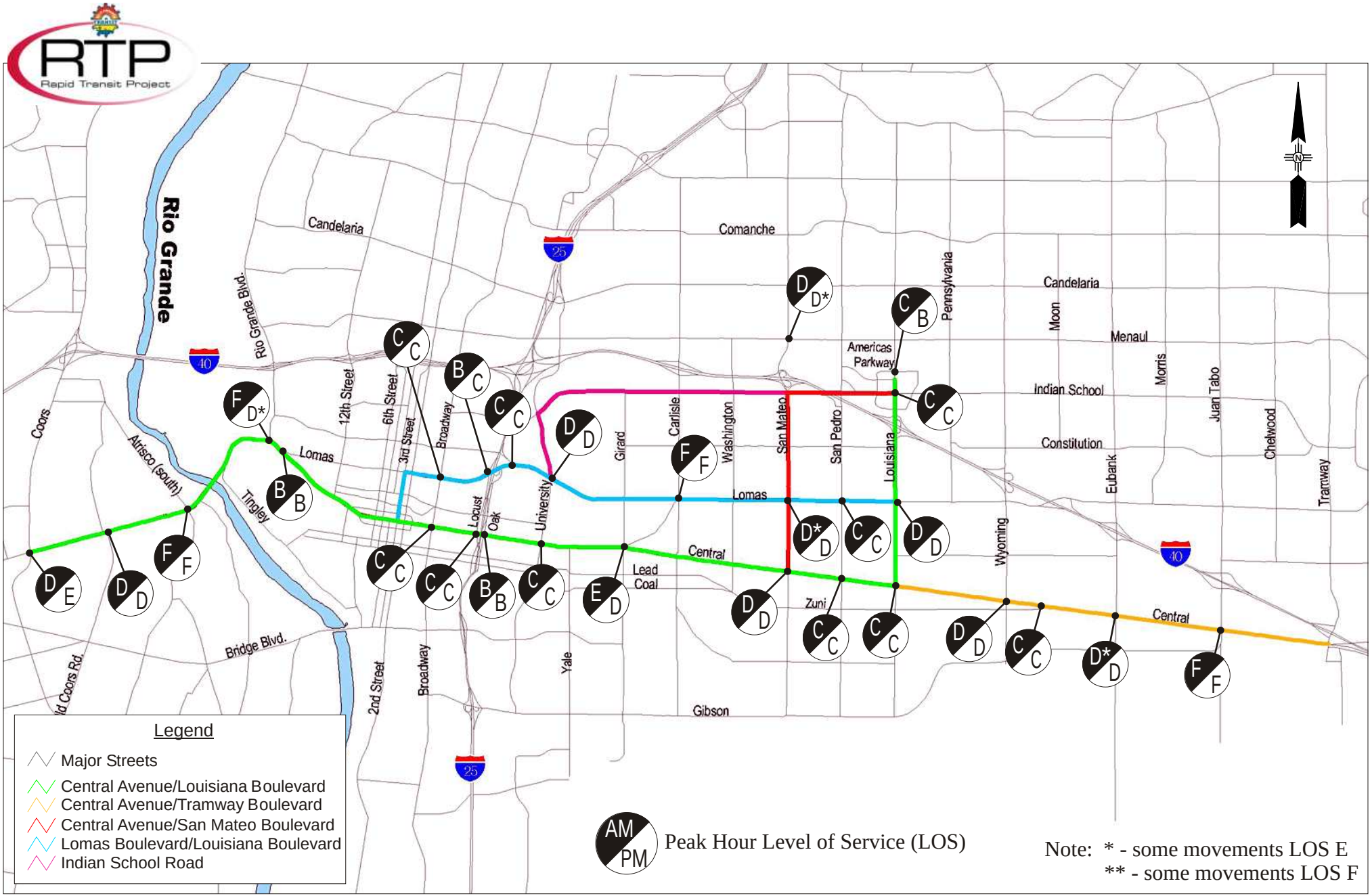

Figure 5: Year 2025 Intersection LOS

In addition to the roadway congestion that affects bus travel, the demand on at least one of the transit routes exceeds its capacity during peak travel periods. Based on on-board surveys conducted as part of the RTP, the Central Avenue bus route (Route 66) boards an average of 9,300 passengers per day, approximately 995 of which board during the peak hour. Based on the existing 10- minute headways and a capacity of 50 persons per bus (seated and standing), the accepted two-way passenger carrying capacity of this route is approximately 800 passengers in the peak hour. Thus, the existing peak period demand on this route exceeds the capacity of the existing service by about 24%.

Data collected by the Transit Department indicates that the over-capacity condition on Route 66 may be more severe than found by the on-board survey. Data collected by the Transit Department over the last eighteen months, shows the average daily ridership on Route 66 was about 10,554 — a number approximately 14% higher than the ridership found during the on-board survey.

None of the other bus routes within the project area experiences congested service, although Lomas Boulevard (Route 11) is at capacity during existing peak period service based on the existing 20-minute headways. Daily ridership for the routes within the project area is provided in Table 2.

Table 2: Average Daily Ridership for Select Transit Routes

Street Route	Route Number	Type of Service	Daily Ridership
Menaul Boulevard	8	local/all day	1,476
Lomas Boulevard	11	local/all day	2,535
Central Avenue	66	local/all day	10,554
Zuni Road	97	local/all day	733
Coors Boulevard	90	local/all day	1,002
San Mateo Boulevard	4	local/all day	2,978
Louisiana Boulevard	3	local/all day	1,232
Indian School Road	6	commuter	178
Constitution Avenue	12	commuter	146
San Pedro Drive	34	commuter	163

Note: Daily ridership is average for the period from July 2001 through June 2002.
Commuter service refers to route operated only during peak periods.

2.2 Population and Employment

The need for high capacity service is also reflected in the population and employment characteristics of the project area. According to the 2000 Census and MRCOG data, almost one-fourth of the population and over one-third of all jobs for Albuquerque are within the general project area. Providing efficient transportation and access to employment is essential to the economic well-being of the City.

A review of 2000 Census data shows that 42% of the project area population qualifies as a disadvantaged minority, 21% have an income level below poverty, and 14% are age 65 or older. The citywide averages for these same statistics are 35%, 13%, and 12%, respectively. In addition, approximately 3% of the households within the project area do not own a car, compared to less than 6% of households citywide. Figure 6 illustrates the subzones within the project area where the percentage of special status populations is greater than citywide averages. Table 3 below summarizes the population and employment statistics citywide and for the project area.

Table 3: 2000 Year Population and Employment Characteristics

	Albuquerque	Project Area	%
2000 Population	480,047	112,921	24
2000 Employment	308,652	111,435	36
2000 Minority Population	158,420	47,518	30
2000 65+ Population	53,670	16,038	30
2000 0-Car Households	11,687	3,441	29
2000 Persons below poverty	59,641	23,828	40

Source: 2000 Census and MRCOG (2000 data base). Totals are aggregations of data for DASZs that are wholly or partially within the specified geography.

These statistics indicate that an efficient high-capacity transit system would provide service to a large number of transit dependent populations and has the potential to attract a significant number of additional riders for commuter travel between residences and the workplace.

Population and employment projections prepared by MRCOG indicate moderate growth within the project area. Projections for 2025 indicate a population increase of approximately 6% and employment growth of about 16%. In comparison, the population and employment growth for Albuquerque overall is projected to be about 26% and 31%, respectively. A comparison of the population and employment statistics for the project area and overall city indicate that the Central Avenue Corridor will continue to contain a large percentage of the residents and jobs within the City (20% and 32%, respectively). A summary of population and employment growth for the project area and the City is provided in Table 4.

Table 4: Population and Employment Growth 2000 to 2025

	Population			Employment		
	2000	2025	% Change	2000	2025	Change
Albuquerque	480,047	603,132	26%	308,652	402,833	31%
Project Area	112,921	119,709	6%	111,435	128,934	16%
Percent of Total	24%	20%		36%	32%	

Source: 2000 census and MRCOG

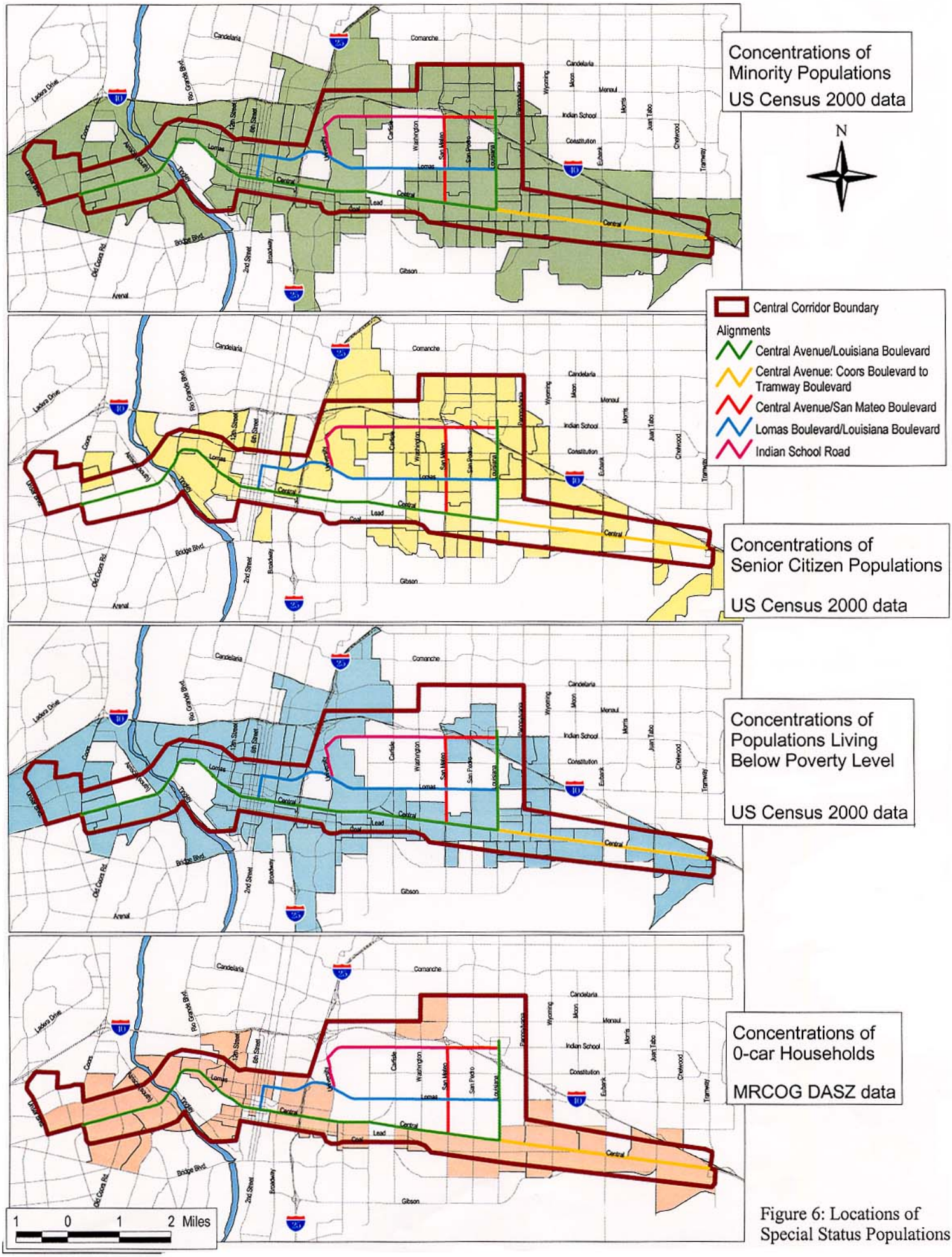

Figure 6: Locations of Special Status Populations

Approximately 39% of all jobs within the project area are located in four major activity centers including Downtown, Uptown, UNM/T-VI, and Atrisco Business Park (see Table 5). The combined number of jobs in these four activity centers totals about 43,990 — the vast majority of which are located in three of the four centers, with Downtown having an employment base of over 15,000, UNM with about 13,400, and Uptown with almost 13,000 jobs.

Based on the MRCOG adopted 2025 socioeconomic projections, the employment in both Downtown and the University of New Mexico (UNM) is expected to increase by about 3,300 jobs over the next 20 years. Employment in Uptown is projected to increase by almost 2,800 jobs during that same period. It should be noted that these numbers do not include the growth and expansion associated with Downtown and UNM that are outside the existing boundaries for these areas (e.g., medical facilities to the east of Downtown and the redevelopment of University owned land west of University Boulevard).

Table 5: Population and Employment of Major Activity Centers

	Population			Employment		
	2000	2025	% Change	2000	2025	% Change
Downtown	812	1,290	59%	15,482	17,838	15%
Uptown	2,503	3,803	52%	12,816	15,583	22%
UNM	2,401	3,147	31%	13,421	14,360	7%
Atrisco Business Park	690	1,589	130%	2,269	4,515	99%

Note: The populations reported for Downtown do not include the Bernalillo County Detention Center.

Much of the projected population and employment growth shown in the above table is expected to involve redevelopment of land currently in use. Redeveloped lands trend towards higher densities due to the higher land values and current policies that emphasize a more compact urban form. The increased density of the project area will be conducive to transit oriented developments and will further contribute to the need for high capacity transit service.

2.3 Land Use and Growth Policies

The City of Albuquerque has several overarching transit-supportive policies. In general, these policies are intended to direct the type and location of development, most of which is focused on a more compact urban form that supports transit service. The most significant of these policies are Council Resolution R-70, Centers and Corridors, and the Planned Growth Strategy.

Council Resolution R-70

City Council resolution R-70, which was adopted in September of 1998, established as policy the concept of community and regional centers connected by major high-capacity transportation corridors. R-70 further established as policy that the City should emphasize and tie its economic development program to the promotion, development and redevelopment of a Downtown Core and other specified major activity centers. It further mandated the need to invest in improved transit service to support the concept of centers and corridors, encourage a more compact urban form, and improve the viability of transit as an alternative mode of travel.

Centers and Corridors Concept

The Centers and Corridors concept further advanced the policies of R-70 and identified the specific transportation corridors and activity centers that are the focus of development and redevelopment activities. First established as a concept, the findings and recommendations of Centers and Corridors were adopted as an amendment to the Albuquerque/Bernalillo County Comprehensive Plan in late 2001. As stated in the Centers and Corridors concept, its objectives are to (1) achieve a more efficient delivery, maintenance and rehabilitation of public services and infrastructure; (2) develop a built environment that offers greater options that enhance quality of life; and (3) provide more transportation choices for citizens of the City and County.

The Centers and Corridors concept established five basic activity center types, three of which are of significance to the RTP and Central Avenue Corridor. These include major activity center, special activity center, and community center. Of the eight major activity centers specified in Centers and Corridors, five are located within or near the Central Avenue Corridor including Downtown, UNM, Albuquerque Technical Vocational Institute (T-VI), Uptown, Sandia National Laboratories (SNL), Kirtland Air Force Base (KAFB) and Atrisco Business Park. Two special activity centers (New Mexico State Fairgrounds and the Albuquerque Bio Park/Zoo) and six designated community centers (Four Hills Village, International Market Center, Highland Center, Nob Hill, Old Town, and Atrisco Plaza) are also located within the Central Avenue Corridor. The location and general boundaries of each of these centers are illustrated in Figure 7.

The Centers and Corridors concept also established specific transit corridors separated into four categories. The four corridor types include:

- Express corridors that are dedicated for limited-stop express service during peak commuter periods.
- Major transit corridors that are intended to provide a mixture of local bus service and some limited-stop transit service. Where feasible, dedicated transit lanes are to be provided.
- Enhanced transit corridors that are also intended to provide a mixture of local bus service and some express routes; however, without dedicated transit lanes.
- Arterial corridors with mostly local bus service with a limited amount of express service.

The primary difference between the major corridors and enhanced corridors is the emphasis on transit-oriented development within the major corridor. Development of this type would promote a higher usage of transit but would not necessarily emphasize longer distance commuter service.

The Central Avenue Corridor encompasses several major and enhanced transit corridors. Centers and Corridors specifies Central Avenue from Atrisco Plaza to Louisiana Boulevard, Louisiana Boulevard from Uptown to Gibson Boulevard, and 4th Street from Osuna Road to

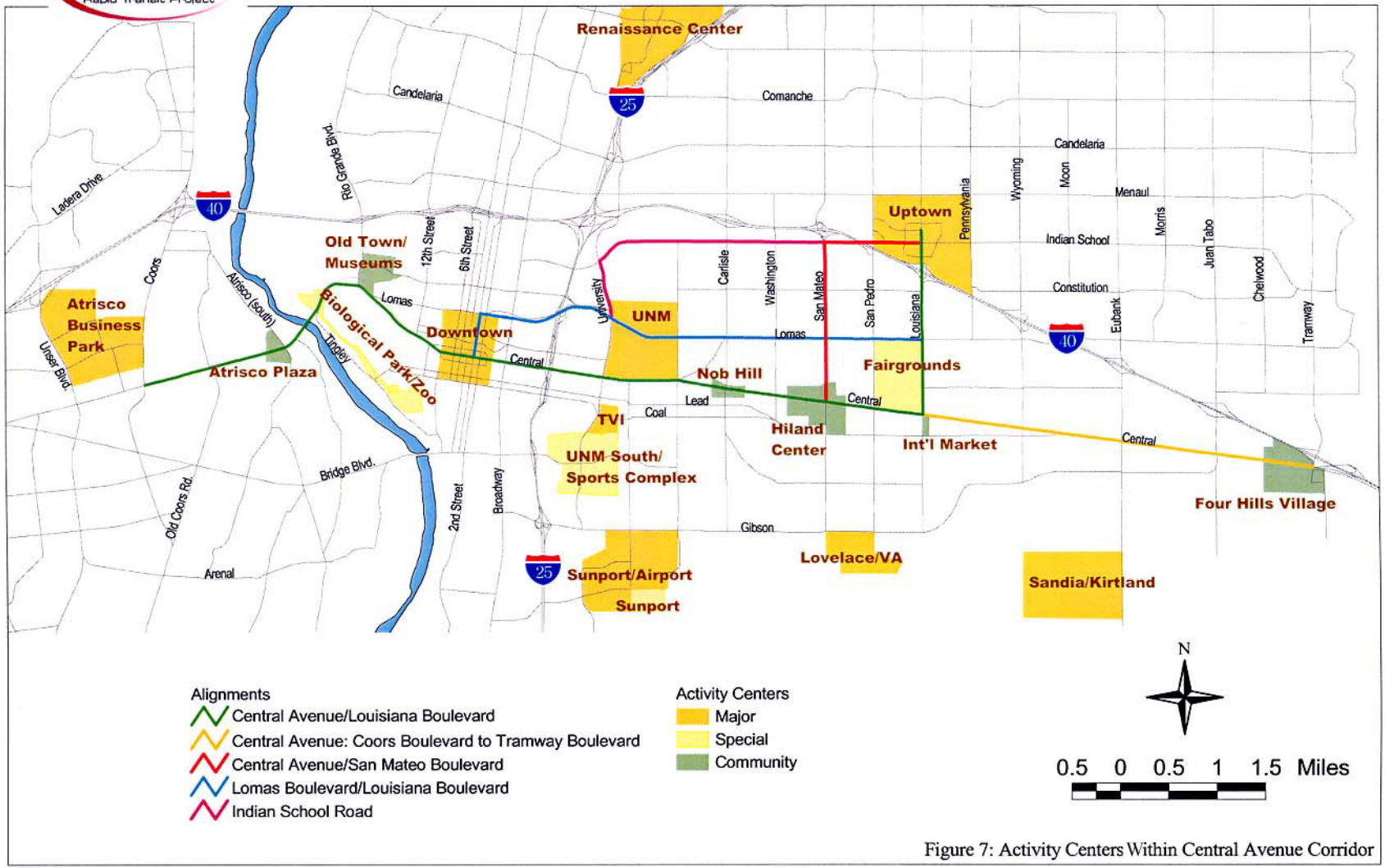

Figure 7: Activity Centers Within Central Avenue Corridor

Central Avenue as major transit corridors. Routes designated as enhanced corridors include Central Avenue from 98th Street to Atrisco Plaza, Central Avenue from Louisiana Boulevard to Juan Tabo Boulevard, University Boulevard from Menaul Boulevard to Gibson Boulevard, all of Menaul Boulevard, all of San Mateo Boulevard, and Lomas Boulevard from Central Avenue to Wyoming Boulevard.

Planned Growth Strategy

The development of the Planned Growth Strategy has been underway for several years and has involved numerous governmental staff, elected officials, and members of the business community and general public. The two-volume document *Planned Growth Strategy* was released in 2001. Key points of this strategy are:

- Proactive efforts and guidance by local government to achieve the future vision.
- Emphasizing development within existing service areas.
- Linkages between where people live and where they travel so that it is easier to travel to work, school, and shopping, especially by transit, walking, and bicycling.
- Priority of maintaining existing neighborhoods and infrastructure with fringe development occurring in a better managed pattern.

In August 2002, the Albuquerque City Council passed an ordinance that required the City to establish working committees charged with the development of work plans and implementation plans.

The more compact urban form that results from the above policies will strengthen the viability of and need for high capacity transit service within the Central Avenue Corridor. High-capacity transit service will be essential to achieving the objectives of these polices and to efficiently serve the additional growth and densification of the Downtown, UNM, and Uptown areas along with the continued transit-supportive development along Central Avenue (e.g., Albuquerque BioPark, Nob Hill, Hiland Center, and International Market).